

ADMINISTRATIVE-INTERNAL USE ONLY

DATA CENTER OPERATIONS BRANCH

NDS OPERATIONS PROCEDURE MANUAL
NO. P-A004

SYSTEMS SW & HW
13 April 1983

AMPERIF PREVENTATIVE MAINTENANCE

SYMBOLIC TITLE: N/A

ORIGINATOR:

STAT

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P-A004

DATA CENTER OPERATIONS BRANCH

DCOB PROCEDURE
No. PD-A-0005/83

OPERATIONS-GENERAL
26 January 1983

AMPERIF PREVENTIVE MAINTENANCE

PURPOSE

1. The purpose of this Procedure is to formalize a Preventive Maintenance (PM) schedule on Amperif equipment. This equipment includes Amperif Solid State Drum (SSD) and controllers, cache disc subsystem controllers, data copy, uninterrupted power source (UPS), and individual disc drives. This Procedure should be used as a reference in scheduling, performing, and tracking preventive maintenance on Amperif equipment.

REFERENCES

2. The following documents are applicable to the implementation of this Procedure:

- | | |
|--------------------------------|----------------------------|
| a. CSD Plan CSD-81-0001 | CSD Management Plan |
| b. CSD Instruction No. 50-0008 | NDS Schedule of Operations |

APPLICABILITY

3. All personnel responsible for the stability of the Amperif equipment. All Amperif engineers performing maintenance on Amperif equipment.

POLICY

4. The Data Center Operations Branch (DCOB) is required to maintain all NDS computers, peripheral equipment, and communications hardware as described in the CSD Management Plan (CSD-81-0001).

BACKGROUND

5. This Procedure evolved from a TEM, on 23 September 1982, attended by DCOB and Amperif maintenance personnel. All maintenance and scheduling items were agreed to by both parties.

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PROCEDURE

6. Amperif equipment PM is to be conducted as an on-going effort. To accomplish that effort PM will be performed in three phases: weekly, monthly, and semi-annually.

WEEKLY PM

7. Amperif will perform weekly PM every Wednesday from 1600 to 1700 hours except on the first Wednesday of the month. This PM will not require an outage to the NDS operational system. If the Amperif engineers discover a potential fatal problem within the Amperif hardware, they will notify the on-duty Operations Control Officer (OCO). The OCO should insure an operational system outage is scheduled as soon as possible for corrective maintenance.

MONTHLY PM

8. Amperif will perform monthly PM on the first Wednesday of the month from 1900 to 2200 hours. The Operations Support Section (OSS) is required to schedule a operational system outage for this period. Prior to Amperif PM, Data Center Operations Section (DCOS) personnel will copy the SSDs to tape. This tape will be used to verify the data copy feature of the SSDs. SSD data is to be restored from tape if the data copy does not verify correctly. Amperif will check the UPS for proper charge, check and log air flows for each disc drive, and insure proper operation of data copy feature for the SSDs and cache.

SEMI-ANNUAL PM

9. Amperif will perform semi-annual PM on individual disc drives, assuring all drives have been checked, voltages adjusted, cleaned, and inspected during the six-month period. This PM can be performed on-line with no operational system outage. At opportune times the DCOS will substitute a spare drive for an operational drive, on advice from the OCOs, to insure that Amperif will always have a drive to PM. The OCOs are responsible for tracking which drives have or have not had semi-annual PM.

10. The Operations Support Section (OSS) will notify Amperif maintenance of extended NDS computer system outages if these outages do not require use of Amperif equipment. Amperif will be scheduled to use this time to perform any maintenance they feel necessary.

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11. To further assist Amperif in fault isolation and error detection, the OCOs are responsible for logging recoverable errors. Attached are forms which will be completed by the OCOs and Amperif to assist all interested parties in further tracking of errors and PM items.

STAT

Attachment: a/s

Distribution: D

Record readings in box, if filter is replaced initial box.

	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
DAA												
DAB												
DAC												
DAD												
DAE												

DBA												
DBB												
DBC												
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DDG												
DDH												
DDI												
DDJ												

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B. Refer to PM requirement sheet for meaning of letters.

ADL-211-104

II. MONTHLY PM

- A. Insert date in block when PM is performed.
 B. Refer to PM requirement sheet for meaning of letters.

	DCA			DCB			DCC			DCD			SSD		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
JANUARY															
FEBRUARY															
MARCH															
APRIL															
MAY															
JUNE															
JULY															
AUGUST															
SEPTEMBER															
OCTOBER															
NOVEMBER															
DECEMBER															

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A. In ☐ date in block when PM is Pr ☐ ed.

B. Refer to PM requirement sheet for meaning of letters.

	A	B	C	D	E	F	G
DAA							
DAB							
DAC							
DAD							
DAE							

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DBG							
DBH							
DBI							

	A	B	C	D	E	F	G
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DCB							
DCC							
DCD							
DCE							
DCF							
DCG							
DCH							
DCI							

	A	B	C	D	E	F	G
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DDB							
DDC							
DDD							
DDE							
DDF							
DDG							
DDH							
DDI							
DDJ							

	A	B	C	D	E	F	G
DAA							
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DAC							
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	A	B	C	D	E	F	G
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DBC							
DBD							
DBE							
DBF							
DBG							
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DBI							

	A	B	C	D	E	F	G
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DCB							
DCC							
DCD							
DCE							
DCF							
DCG							
DCH							
DCI							

	A	B	C	D	E	F	G
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DDB							
DDC							
DDD							
DDE							
DDF							
DDG							
DDH							
DDI							
DDJ							

Date due _____

Date due _____